



MEMORANDUM



To Distribution

From P. Hoye - BBH

Date December 19, 1977

Subject ACCELERATED WEATHERING OF COATING ASPHALTS

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Accelerated weather testing of unfilled and filled asphalts representing the coatings being used by the various mills during early 1977 have been completed. The tests were run on 30 to 33 mil coatings applied to aluminum panels. The weathering took place in a Model DMCR Weather-Ometer according to ASTM D529-62, Cycle A.

Cycles to failure were as follows:

Unfilled Coatings		53% Filled Coatings	
FJ	59	FJ	129
FK	45	FK	129
FB	45	FB	86
FM	40	FS	67
FS	33	FW	67
FW	30	FM	49
FO	30	FO	40

Conclusions:

1. Unfilled FJ coating leads the other asphalts in durability by a decisive margin. When filled, it shows an outstanding performance which is matched by the filled version of the FK coating.
2. The results obtained from the FB coating, both unfilled and filled, are typical of what we expect from an average satisfactory coating.
3. The FM coating, based on Sultanate of Oman asphalt weathered reasonably well when not filled, but showed no appreciable enhancement in durability from the presence of filler.
4. The catalysed Qatar asphalt used at FO had the poorest performance. Later in the year, it was replaced by asphalt from Oman.

Reference:

BBH Book 246, pp. 18 and 19

P. Hoye
/kag

ASPHALT COATING DURABILITY - CYCLES TO FAILURE IN AWT

	S.P. O.F.	Pen 0.1mm	Unfilled Sample	Cycles	53% Filled Sample	Cycles
Norwood	220	19.5	927-1	45	928	86
Exxon/Shell			-2	45		
Venezuela				45		
Average					FBW Dust	
Filler						
Wilmington	230	18	929-1	30	930	67
Edgerton California			-2	30		
Average				30		
Filler					3M Filler	
Martinez	220	18	931-1	40	932	49
Shell Sultinate			-2	40		
of Oman				40		
Average					Limestone	
Filler						
Charleston	228	18	933-1	45	934	129
Exxon Venezuela			-2	45		
Average				45		
Filler					FKW Dust	
Perth Amboy	227	18	935-1	61	936	129
Trumbull Venezuela			-2	57		
Average				59		
Filler					GAF B65	
Portland	220	20	937-1	30	938	40
Shell Qatar			-2	30		
Catalysed				30		
Average					Limestone	
Filler						
Shreveport	230	16	939-1	33	940	67
East Texas/Arkansas			-2	33		
Average				33		
Filler					Glenwood	

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